

REMARKS

The present Amendment amends claims 1, 8, 10, 16, 18 and 19, cancels claims 2, 5-7 and 17 and leaves claims 3, 4, 9, 11-15 and 20-26 unchanged. Therefore, the present application has pending claims 1, 3, 4, 8-16 and 18-26.

Applicants respectfully request the Examiner to contact Applicants' Attorney by telephone so as to discuss the outstanding issues of the present application prior to examination thereof.

The drawings stands objected to due to informalities noted by the Examiner in paragraph 2 of the Office Action. Filed on even date herewith are Proposed Drawing Corrections. Therefore, this objection is overcome and should be withdrawn.

Claims 1-3, 9 and 16 stand rejected under 35 USC §102(e) as being anticipated by Wang (U.S. Patent No. 6,434,197); claims 4-6 stand rejected under 35 USC §103(a) as being unpatentable over Wang; claims 7, 8 and 17-26 stand rejected under 35 USC §103(a) as being unpatentable over Wang in view of Kim (U.S. Patent No. 6,342,923); claims 10-12 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Wang in view of Kanoh (U.S. Patent No. 5,272,5200; and claims 13 and 14 stand rejected under 35 USC §103(a) as being unpatentable over Wang and Kanoh in view of Kim. As indicated above, claims 2, 5-7 and 17 were canceled. Therefore, these rejections with respect to claims 2, 5-7 and 17 are rendered moot. With respect to the remaining claims 1, 3, 4, 8-16 and 18-26 these rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now recited in claims 1, 3, 4, 8-16 and 18-26 are not taught or suggested by Wang, Kim or Kanoh whether taken

individually or in combination with each other as suggested by the Examiner.

Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Amendments were made to each of independent claims 1, 10 and 16 so as to more clearly describe features of the present invention not taught or suggested by any of the references of record whether taken individually or in combination with each other.

Particularly, amendments were made to claims 1, 10 and 16 to more clearly recite that the present invention is directed to an image data conversion apparatus and method thereof for converting transmitted compressed image data into image data of a different format and displaying the converted image data on a display apparatus not taught or suggested by any of the references of record whether taken individually or in combination with taken individually or in combination with each other.

Unique according to the present invention as now more clearly recited in claims 1 and 16 is that a first signal processing unit receives and decodes the compressed image data, records the decoded image data in a recording unit and reads out the decoded image data one line by one line at a scanning period of the display apparatus. According to the present invention, the first signal processing unit includes a conversion processing section for eliminating a predetermined number of lines from the decoded image data so that image data of a same number of lines as that of the display apparatus can be read out from the recording unit in a manner such that data of every sixth line of the decoded image data is eliminated. The

decoded image data of the present invention as recited in the claims, from which every six line is eliminated, is of the common intermediate format (CIF) type.

The above described features of the present invention now more clearly recited in independent claims 1 and 16 and the claims which depend therefrom provide an image data conversion apparatus and method wherein a moving picture can be read out in real time due to the reduced amount data that requires transfer and the control circuit which effects the real time display can be simplified thereby allowing for use of less complicated circuitry. In order to understand these features of the present invention, the Examiner's attention is directed to the passage beginning on page 8, line 8 through page 9, line 15 of the present application.

The above described features of the present invention now more clearly recited in claims 1 and 16 and the claims which depend therefrom are not taught or suggested by Wang, Kim or Kanoh whether taken individually or in combination with each other as suggested by the Examiner.

Wang discloses a method and apparatus for transcoding digital video data at the head end of a cable or satellite television network. As taught in Wang, the generic multi-functional transcoder architecture has a post pre-processing engine that provides a number of processing functions including changing frame size, frame rate, color space, sample format, interlaced or progressive scan format, etc. However, at no point is there any teaching or suggestion in Wang of the above described features of the present invention particularly the elimination of every sixth line of image data of the CIF type format as recited in the claims. In fact, the Examiner readily admits on page 5 of the Office Action that:

“Wang et al does not particularly disclose the conversion section eliminating every sixth line of decoded image data of CIF type”.

The Examiner upon recognizing the above described deficiencies of Wang attempts to supply such deficiencies by combining Wang with Kim. However, Kim does not supply the teaching alleged by the Examiner.

Kim specifically teaches the converting of image data of five lines into data of six lines having a CIF type format. Attention is directed, for example, to Fig. 2 of Kim. However, at no point is there any teaching or suggestion in Kim of data processing wherein every six line of the image data of the CIF type is eliminated as recited in the claims.

The same deficiencies also exist in Kanoh.

Therefore, Wang, Kim and Kanoh fail to teach or suggest that the first signal processing includes a conversion processing section for eliminating a number of lines from the decoded image data so that image data of a same number of lines as that of the apparatus can be read out from the recording unit and that the conversion processing section eliminates data of every sixth line of the decoded image data of the CIF type as recited in the claims.

As is quite clear from the above, the features of the present invention as recited in independent claims 1 and 16 and the claims which depend therefrom namely claims 3, 4, 9 and 17-26 are not taught or suggested by Wang, Kim or Kanoh whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw the 35 USC §102(e) rejection of claims 1, 3, 9 and 16 as being

anticipated by Wang, the 35 USC §103(a) rejection of claim 4 as being unpatentable over Wang and the 35 USC §103(a) rejection of claims 8 and 17-26 as being unpatentable over Wang in view of Kim.

Amendments were also made to independent claim 10 so as to more clearly recite that the present invention is directed to an image data conversion apparatus having a shared structure which can be used both as an apparatus for generating even fields and as an apparatus for generating odd fields. Unique according to the present invention is that the image data conversion apparatus as recited in claim 10 includes a second signal processing unit for converting image data read out from the recording unit into image data of a screen size of the display apparatus wherein the second signal processing unit includes an inverse converter for converting the image data of each field into both an odd field image data and an even field image data to permit display on the display apparatus, the image data of the screen size of the display apparatus.

The above described features of the present invention now more clearly recited in independent claim 10 and the claims which depend therefrom are not taught or suggested by Wang, Kim or Kanoh whether taken individually or in combination with each other as suggested by the Examiner. As described above, Wang simply teaches a multi-functional transcoder for compressed bit streams. However, at no point is there any teaching or suggestion in Wang of a second signal processing unit which converts image data read out from a recording unit into image of a screen size of the display apparatus wherein the signal processing unit includes an inverse converter for converting the image data of each field both an odd field

image data and even field image data to permit display on the display apparatus the image data of the screen size of the display apparatus as in the present invention.

On page 7 of the Office Action, the Examiner readily admits that:

“Wang et al does not specifically disclose an inverse converted for converting the image data of each field into an odd field image data and even field image data”.

Recognizing the above described deficiencies of Wang the Examiner attempts to combine Wang with Kanoh or Kim. However, at no point is there any teaching or suggestion in Kanoh or Kim of the above described features of the present invention wherein a second signal processing unit converts image data read out from the recording unit into image data of a screen size of the display apparatus wherein the second signal processing unit includes an inverse converter for converting the image data of each field into both an odd field image data and an even field image data to permit display on the display apparatus the image data of the screen size of the display apparatus as recited in the claims.

Kanoh simply teaches a CIF inverse conversion element 11 in Fig. 1 thereof.

Kanoh teaches that the CIF inverse conversion unit 11:

“processes the input signal in a process inverse to that of the CIF conversion unit of the transmitter”

At no point is there any teaching whatsoever in Kanoh with respect to the CIF inverse conversion unit 11 or for that matter any other element wherein two sets of image data are generated namely odd field image data and even field image data as in the present invention. In fact, Kanoh specifically teaches that the output from the CIF inverse conversion unit 11 is a digital signal having luminance (Y) I channel

chrominance (I) and Q channel chrominance (Q) component signals. There is absolutely no teaching or suggestion that the demultiplexer 12 receives both an odd field image data and an even field image data as in the present invention.

The above noted deficiencies of Kanoh also exist in Kim.

Thus, the combination of Wang and Kanoh fails to teach or suggest the features of the present invention as now more clearly recited in claims 10-15. These features shown not to be taught or suggested by the combination of Wang and Kanoh are also not taught or suggested by the combination of Wang, Kanoh and Kim. Therefore, reconsideration and withdrawal of the 35 USC §103(a) rejection of claims 10-12 and 15 as being unpatentable over Wang in view of Kanoh and the 35 USC §103(a) rejection of claims 13 and 14 as being unpatentable over Wang and Kanoh in view of Kim is respectfully requested.

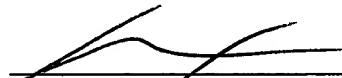
The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-26.

In view of the foregoing amendments and remarks, Applicants submit that claims 1, 3, 4, 8-16 and 18-26 are in condition for allowance. Accordingly, early allowance of claims 1, 3, 4, 8-16 and 18-26 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (500.40857X00).

Respectfully submitted,

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